

ICL Strategic Plan 2012-2021

-To create a safer geo-environment-

-adopted at the ICL 10th Anniversary Conference, Kyoto, 19 January 2012-

The International Consortium on Landslides (ICL) is a non-profit and non-governmental organization consisting (in 2012) of 51 member institutions from 32 countries; its International Programme on Landslides (IPL) was jointly established by the United Nations Educational, Scientific and Cultural Organization (UNESCO), World Meteorological Organization (WMO), Food and Agricultural Organization of the United Nations (FAO), United Nations International Strategy for Disaster Reduction (UNISDR), United Nations University (UNU), International Council for Science (ICSU), International Union of Geological Sciences (IUGS) and the World Federation of Engineering Organizations (WFEO).

Through its '*2006 Tokyo Action Plan*' focusing on "*Strengthening Research and Learning on Landslides and Related Earth System Disasters for Global Risk Preparedness*" the IPL contributes within the 'International Strategy for Disaster Reduction' (ISDR) to the UN-wide agreed "Hyogo Declaration" and "**Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters**".

Preamble

Landslides pose considerable risks to the geo-environment. They threaten the lives of people and their livestock, destroying buildings, transportation networks, 'life-lines', communities, land-use systems, agricultural production, and cultural and natural heritages. Landslides impact heavily on the livelihoods of affected people, their economic situation, food security and culture. It is a fact that it is often the poorest people who are most seriously affected by these dramatic events.

Hazard (including landslide), vulnerability and risks are well documented and recent evidence from numerous UN-publications shows that prevention, if prioritized, pays off in the end and is cost-effective. Why then are we not proactively investing in making communities, our geo-environment and our heritage safer?

Thus, the 'ICL Strategic Plan 2012-2021' aims at facilitating and supporting all-hazards preventive approaches, including people-centred early warning systems, and overall risk assessment to create a safer geo-environment. It also aims at enhancing the understanding of landslides and the human and social vulnerability that can transform them into disasters, and proposes concrete, tangible projects to that end.

Chapter 1 The first 10 years of ICL (2002-2011)

● Initial Mission

Based on the achievement of a Japan-China joint project "Assessment of Landslide Hazards in Lishan, Xian, China" within the International Decade for Natural Disaster Reduction (IDNDR) 1990-2000, IGCP project 425 "*Landslide Hazard Assessment and Mitigation for Cultural Heritage Sites and Other Locations of High Societal Value*" was proposed and implemented in 1998-2003. It was widened to a platform for truly international cooperation in the realm of landslide research and capacity development. The UNESCO-Kyoto University joint symposium "Landslide Risk Mitigation

and Protection of Cultural and Natural Heritage” was organized on 21-25 January 2002. The ‘International Consortium on Landslides’ (ICL) was established during this symposium with adoption of the 2002 Kyoto Declaration “Establishment of an International Consortium on Landslides (ICL)”.

ICL aimed to pursue the systematic translation of scientific and technological advances into concrete landslide disaster mitigation measures and into educational and informational disaster preparedness tools for the population. ICL was involved in numerous activities dealing with the improvement of relevant monitoring and early warning mechanisms.

● ICL Achievements and Accomplishments

Outputs

- During the last 10 years ICL-driven research on problem/solution-focused projects have been identified and strengthened, and
- ICL research and educational items were positioned within the international scientific community, by:
 - ✧ Cooperation with and through governmental and non-governmental organizations, national and international Scientific Organizations (such as ICSU, WFEO, IUGS, IUGG, IGU), Research Centers and Universities;
 - ✧ Cooperation with UN-agencies (UNESCO, WMO, FAO, UNISDR, UNU);
 - ✧ Participation in UN-Global Platforms for Disaster Risk Reduction (Geneva) as an ISDR Thematic Platform on Landslides, and international meetings (such as IGC, EGU, AGU).
- 32 issues of the **Journal “Landslides”** in 2004-2011, as well as 5 full color books, numerous additional publications, organization of two “World Landslide Forums” (in Tokyo in 2008 and Rome in 2011) and the implementation of 91 IPL projects including 43 ongoing IPL Projects have contributed to an increase of ICL’s international recognition and resulted in growth of ICL membership.

Outcomes

- The identification of 15 “*World Centers of Excellence on Landslide Risk Reduction*” at the second World Landslide Forum and “*3 Regional and 5 Thematic Networks*” at the ICL 10th anniversary meeting provided additional driving force;
- The IPL projects helped to increase the common understanding of the importance of landslide research and served as added value in the field of landslides risk reduction, e.g. by:
 - ✧ Raising the profile of landslide-related research through integrating scientific, socio-economic and cultural aspects into multi-hazard approaches,
 - ✧ Recognizing the vulnerability of cultural and natural environments,
 - ✧ Involvement of local communities in risk mapping,
 - ✧ Strengthened capacity building, including training courses,
 - ✧ Implementing monitoring and warning systems in urban, rural, and coastal areas,
 - ✧ Enhanced cooperation between academic and governmental institutions,
 - ✧ Contributing to the mandate of Partner Organizations.

● Outstanding Questions and Challenges

Based on numerous activities, undertaken and implemented in the last decade, ICL aims to strengthen and integrate landslide research to create a safer geo-environment in a multi-hazard approach respecting the needs of humanity, by:

- Analyzing the vulnerability of communities and their social and livelihood components,
- Highlighting ‘Landslide and Global Change’ research, notably considering policy applications such as land-use planning, ecosystem and watershed management, food security, disaster-risk reduction and building resilience in adaptation to climate change,
- Promoting multi-disciplinary research and emerging technologies, such as Remote Sensing, GIS-applications, advanced instrumentation and monitoring,
- Enhancing International Cooperation and Partnerships in the fields of:
 - ✧ Landslide inventory, mapping and historical landslides
 - ✧ Landslides and urban/rural risk reduction
 - ✧ Prevention policies and legislation
 - ✧ Landslides and Cultural or Natural Heritage
- Widening the thematic, institutional and geographic scope through themes, such as:
 - ✧ Submarine landslides and tsunamis
 - ✧ Landslides in cold regions (high latitude – high altitude)
 - ✧ Mega-landslides
- Raising landslide awareness through education and capacity development
- Furthering - in particular - the education of Young Generations
- Improving ICL’s Communication and Advocacy through:
 - ✧ Internet activities, web-portals and Social Networking
 - ✧ Media
- Strengthening ICL’s financial and institutional sustainability.

Chapter 2 The Next Decade of ICL 2012 – 2021

In order to meet the challenges in the next decade, ICL identifies 7 items:

1. Broadening the scope and societal impact in a thematic, institutional and geographic manner, by putting emphasis on:

- ✧ A strong focus on risk reduction and disaster prevention based on land-use planning and management at different scale levels (putting landslides into integrated watershed-, urban infrastructure- and environment-analysis) within a multi-hazard-, as well as multi-, inter-, and trans-disciplinary approach;
- ✧ Developing research partnerships to move from mono-disciplinary to multi-, inter- and trans-disciplinary approaches, including the proper use of local/traditional knowledge;
- ✧ Improving the contributions to food security and livelihoods and the understanding of the impact of disaster prevention progress from simple short-term cost-benefit analysis to more adequate long-term methods;
- ✧ Using and strengthening *Regional and Thematic Networks for landslide risk reduction*
- ✧ Interrelationships between landslides and societal change (e.g. change of governmental policies, risk governance, climate impact, and marginalization of communities).

2. Enhancing international cooperation and capitalizing on synergies with other international organizations and programs, such as UNISDR, ICSU/IRDR, CCOP, UNESCO/UNITWIN, IGCP, UNDP, IUGS, IUGG, IGU, ILP, GEO/GEOSS, UNU, FAO, World Bank’s Global Facility for

Disaster Reduction and Recovery (GFDRR), the Global Network of Civil Society Organizations for Disaster Reduction (GNDR) and academic institutions specialized in landslide risk management.

3. Raising the profile of ICL to the public at large by:

- **Strengthening the influence on governments and society at the regional, national and international level through partnerships with institutions, such as:**
 - ✧ Universities, and other higher education and research institutions,
 - ✧ National Geological Surveys, and European Geological Surveys (EGS),
 - ✧ NGOs and local networks,
 - ✧ Enterprises and business communities (private-public partnerships);
- **Making use of international projects, courses, conferences and workshops:**
 - ✧ IPL presentations at IGCs, EGU, AGU, GSA for example,
 - ✧ Cooperation with UNU and with CCOP and other regional organizations;
- **Developing new methods and techniques:**
 - ✧ Widening the application of modern research findings to reduce vulnerability,
 - ✧ Putting science into practice (e.g. in business, providing consultancies and help);
- **Positioning the ICL as the point of reference of all landslide-risk related issues through enhanced communication:**
 - ✧ Through the ICL-IPL activities in the International Journal “Landslides” and web-portal of ICL and IPL,
 - ✧ By providing statement(s), e.g. on climate changes, on anthropogenic impact;
- **Reinforcing the ICL publications and communication strategy.**

4. Regional and thematic networks for landslide risk reduction

ICL as an international, non-governmental and non-profit scientific organization will work increasingly through regional and/or thematic networks to promote and facilitate landslide risk reduction, whereby:

- ✧ Networks have an open and flexible character,
- ✧ Meet certain criteria,
- ✧ Cooperate with relevant institutions in different sectors of society, in particular the regional, national and local platforms for disaster risk reduction, which include various government sectors, private sector, academic institutions, NGOs and other relevant stakeholders.

5. Capacity development

- ✧ Enhance the importance of landslides in education, including higher education,
- ✧ Strengthen training courses within and across countries,
- ✧ Involve local communities in risk mapping, disaster preparedness and early warning,
- ✧ Elaborate and strengthen landslide school networks,
- ✧ Develop strategies to inform the population, increase awareness and create a culture of resilience.

6. Specific encouragement of young people to specialize on landslide-risk management and disaster prevention

- ✧ Create a ‘Young Scientists Landslide Risk Reduction Award’,
- ✧ Support students studying landslides risk and stimulate Masters and PhD courses focusing on landslide-risk reduction,

- ✧ Encourage the establishment of a student chapter of ICL.

7. Enhance the sustainability of ICL

- ✧ Strengthen ICL's Secretariat,
- ✧ Explore financial opportunities beyond membership fees, including projects with international funding agencies (bilateral donor agencies and development banks in particular),
- ✧ Enhance the institutional framework,
- ✧ Enlarge the membership and explore different categories of membership,
- ✧ Elaborate on the use of ICL and IPL network to members.

Chapter 3 Action Plan

The International Consortium on Landslides (ICL),

Recalling its

- '2006 Tokyo Action Plan' and
- the listed challenges in ICL's 'Next Decade' (Chapter 2)

Has identified at its 10th Anniversary Meeting, held from 16 to 20 January 2012 at Kyoto, Japan, the future global issues of ICL-IPL as follows:

1. Promoting Multi- and Trans-disciplinary Research, New Research Fields, and Technology Development

(including sub-items described in Chapter 2, para 1: *Broadening the scope and societal impact in a thematic, institutional and geographic manner*) by:

- ✧ Widened application of modern and advanced technologies, such as GIS, INSAR and Remote Sensing,
- ✧ Promotion of global landslide mapping, monitoring and risk assessment ('World Landslide Map'),
- ✧ Development of monitoring and warning systems for slope stabilization and landslide prevention policies, e.g. through automated methods,
- ✧ Assessment of 'state of the art' in landslide research and practice,
- ✧ Strengthening of relationships with social and economic sciences.

2. Strengthening the Cooperation with Partner Organization through Concrete Projects

(including sub-items described in Chapter 2, para 2: *Enhance international cooperation and capitalize on synergies* and para 4: *Regional and/or thematic networks*) by:

- ✧ Improving bi- or multi-lateral cooperation with engineering, water, soil and other communities and programmes (such as GLOF.),
- ✧ Enhancing activities by thematic and regional **networking**, as well as through **World Centers of Excellence** (WCoEs).

3. Providing Expertise, Knowledge and Consultancies to Governments

(including sub-items described in Chapter 2, para 3: *Raising the profile of ICL to the public at large*) by:

- ✧ Positioning ICL as the point of reference of all landslide related issues,
- ✧ Providing statement(s), on for example climate changes and on anthropogenic impact,
- ✧ Improving the recognition and 'marketing' of ICL,

- ✧ Providing expertise in emergency situations.

4. Capacity Development, Education, and Outreach

(including sub-items described in Chapter 2, para 5: Capacity development; para 6: Specific encouragement of young people to specialize on landslide-risk management and disaster prevention) by:

- ✧ Organisation of educational and training courses at all levels, including schools and universities, journalists and politicians,
- ✧ Enhancement of human and institutional capacities,
- ✧ Development of a culture of awareness of landslide risk (creation of a culture of resilience),
- ✧ Inspiration of students, teachers and the public at large by communicating advances in landslide science through the media and museums,
- ✧ Cooperation with World Heritage, National & Geoparks in the field of Landslide Risk Reduction,
- ✧ Development of a project on historical ‘**Classic Landslides**’ (demonstration sites, following the models of ‘World Heritage Sites’ and ‘Geosites’).

5. Communication, Website, Marketing Landslides

- ✧ Enhancement of internal and external communications (e.g. through a web-portal) by highlighting the huge responsibility, the political components, the vulnerability of society at the interface of environment, hazards and society,
- ✧ Promotion of Tele-communication and Tele-conferences,
- ✧ Media contact,
- ✧ Photographic contests.

6. Publications

Reinforcement of the ICL Publication and Communication Strategy through publication of:

- ✧ The Journal ‘Landslides’, developing from a quarterly to a bimonthly journal, increasing pages and thematic issues, improving the impact,
- ✧ Proceedings of World Landslide Forums in a series of books with color illustrations e.g. 7 volumes of books for WLF2,
- ✧ Scientific books, handbooks, guidebooks, and ‘Proceedings’ of ICL and IPL conferences/symposia
- ✧ Coffee-table books.

7. Enhancement of the sustainability of ICL and Strengthening of ICL’s Secretariat

- ✧ Involvement of younger generations in ICL and IPL activities,
- ✧ Recruitment of new members who will deal with landslide-risk reduction work,
- ✧ Recruitment of new members with powerful capacities and potentials on landslides,
- ✧ Development of an effective international work-sharing and collaborating system for the ICL Secretariat.

Closing Remarks, Summary

The ICL Strategic Plan intends to stimulate specific projects and activities within its **International Programme on Landslides (IPL)** to create a safer geo-environment through strengthening cooperation between scientists and governmental institutions in the field of landslide-risk reduction. Relevant knowledge of geological and engineering sciences, hydrology, geophysics, soil and rock

mechanics, meteorology, geomorphology, architecture, forestry, agriculture, culture, communication, and the information, social and human sciences shall be integrated into this endeavour.

Taking into account the big challenges of the new millennium which include inter alia **Global Climate Change and Disasters**, ICL is prepared to contribute through encouraging initiatives to the reduction of risks and losses stemming from landslides including rock falls, rock slides, debris avalanches, debris flows, and pyroclastic flows in urban, rural and coastal regions.

ICL provides an international platform for fostering a culture of prevention of landslide-related disasters. In addition to scientific, socio-economic, educational, and environmental aspects of IPL projects, selected case studies (such as of Machu Picchu) are highlighting the societal, cultural and natural values to humanity. ICL contributes to the UN-wide actions in disaster and vulnerability reduction, driven by the United Nations **International Strategy for Disaster Reduction (ISDR)**, involving various UN and other international and regional intergovernmental organizations, governments, parliamentarians, local authorities, academic institutions, private sector, civil society organizations, media and other relevant stakeholders at all levels.